

## INSTALLATION, PRODUCT CARE & WARRANTY – FOR GRC PLANTERS

**WARNING!** – Ignoring this information could void your product warranty.

Satu Bumi Cityscape planters are built to be strong, attractive, and last for decades. However, to get the intended result, there are several things that need to be taken into consideration at each of the design, installation planning and physical installation stages to ensure the planters are installed appropriately. Therefore, the intention of this information sheet is to highlight these issues to Satu Bumi's customers so that they are not overlooked in the overall project planning and installer selection processes.

However, possibly the best advice you will ever receive on the installation of GRC planters for commercial projects is: -

- Choose a landscaping company to do the installation on reputation and competence and not solely on price, and
- Ensure the selected installing company's installation pricing includes references to the relevant issues covered in this document.

### ■ Design considerations to assist in installation

A good GRC planter installation starts at the design stage. If GRC planters are designed to take into consideration the known issues relating to how and where the planters are to be installed you can avoid a whole range of issues that could turn the installation into a real headache if not a mini disaster.

GRC products are generally referred to as "light weight" because their walls can be made much thinner (and therefore lighter) in comparison to cast concrete products due to the strength provided by glass fibre reinforcement, not because they are actually light in weight. Therefore, the following issues should be considered in the design of GRC planters with regards to the practicalities of their installation: -

- The actual weights of each planter - for deciding on the appropriate lifting, moving and manoeuvring-into-position equipment required for the project.
- The imbedding of lifting lugs into the bottom of the planters during the manufacturing process - for use in conjunction with lifting equipment to ensure the planters are not chipped or damaged.
- The precision of planter lengths, widths, and heights - to suit the specific peculiarities of the planter destinations. Not all slabs are flat and not all walls are straight.

- Planter feet height – for drainage and the potential of lifting straps for multi storey projects.
- The inclusion of drainage holes to suite the planned use of either automatic irrigation systems or wicking systems.
- The addition of forklift tine holes – for the lifting of very large planters in public spaces.
- The inclusion of ferrules – for fixing requirements.

## ■ The Installation Process

### a. Installation surface preparation

- If the ground on which the planters is to be placed is not solid it must be compacted and levelled before the planters are placed into position.
- Where hard surfaces do not enable compacting and levelling, appropriate strong packing material should be used to create a level base. Adjustable pedestals from Versijack, or their equivalent, maybe worth considering for very large planters.
- Care should be taken to ensure that planter feet support their weight evenly before and after the planters are filled with soil and vegetation. Therefore: -
  - planters should be steady and not be able to rock while empty, and
  - all the planter feet should be touching the ground to take any stresses evenly after the planters have been filled with soil and vegetation.

### b. Moving planters into position

GRC planters are most likely to get damaged when they are being moved into position. Therefore: -

- Follow the installation and stacking sticker labels on planter packaging to avoid damage.
- Do not remove the packaging within which the planters were transported to site until the planters are ready to be installed.
- Use a pallet jack, furniture dolly or padded hand truck when moving planters.
- Use additional padding on the hard surfaces of a pallet jack, furniture dolly or padded hand truck that may come into direct contact with the planters when transporting them into position, e.g., cardboard or blankets.
- Place planters onto their prepared surface. Do not drag or roll them into place.
- Avoid using leveraging bars (crow bars) or use them cautiously with padding.
- Use lifting lugs with appropriate lifting equipment to manoeuvre larger planters into position.

**WARNING!** – Chipping of GRC planters can virtually ruin a GRC planter installation. Therefore, a portable crane gantry, a mini crawler crane or an equivalent piece of equipment for manoeuvring heavy GRC planters into position should be used. GRC planter installation quotations should be seriously questioned if this issue is not addressed in some way in the pricing.

**WARNING!** – Satu Bumi's standard lifting lugs are designed for lifting planters to a maximum height of 50 cm. If lugs are required for lifting higher than 50 cm, this should be specified prior to manufacture.

### **c. Adding holes to GRC planters**

If holes for drainage, irrigation, fixing, the addition of balustrades or any other reason need to be made in GRC planters post manufacture, the following issues need to be taken into consideration: -

- Satu Bumi planters come with an internal waterproof membrane (unless otherwise specified at shop drawings stage). Therefore, if holes are punched in the planters this membrane will be damaged and must be repaired to avoid water leakage.
- Diamond tipped drills must be used to create holes in GRC planters.

**WARNING!** – Hammer drills should not be used under any circumstances on GRC planters because they will damage the structure of the planters and weaken them around the area of the hole. GRC is not the same as cast concrete in structure. Therefore, even though a hammer drill may be appropriate for drilling holes in cast concrete it does not mean that the same process is acceptable when drilling holes in GRC planters.

### **d. Avoid Chipping when filling empty planters**

Satu Bumi planters come with a heavy-duty cardboard top rim cover for use in protecting the planter rims from damage during the planting process. Therefore, when the planter packaging is being removed this cover should be retained and placed back on the top rim of the planter whilst the planters are being filled with soil and vegetation to avoid chipping or unsightly superficial marking.

### **e. Irrigation & Drainage**

Provision for irrigation and adequate drainage is essential when installing planters. Satu Bumi can provide drainage holes in any location on planters to suit whatever irrigation system design is required.

- **Without an automatic irrigation system**

If you want healthy vegetation in your planters, it is not adequate to simply fill them with good quality potting soil before adding the required

vegetation. To avoid drainage blockages, planters should at least include appropriate levels of mulch, premium potting soil, a layer of drainage filler (i.e., coarse sand, scoria, pebbles, or something similar), and some kind of drainage cell to cover the actual planter drainage hole(s). Good quality landscapers and planter installers will know this. However, this issue can often be deliberately overlooked to save cost. This is a big mistake and can impact or even void your planter warranty.

- **With an automatic irrigation system**

Automatic irrigation systems can be convenient if they are installed well. However, a key element in their success is the provision of adequate and reliable drainage to clear excess water. If water is trapped in a planter due to poor drainage, the resulting ponding of the water in the planter can potentially kill the planter's vegetation and eventually cause damage to the planter itself.

**WARNING!** – When using automatic irrigation systems, if there is any chance of drainage blockage, an internal bitumen ponding sealant should be used on the planters rather than the standard acrylic waterproofing membrane. The use of an internal bitumen ponding sealant will not stop the vegetation in the planters rotting due to excess water. However, it will provide a higher level of waterproofing than an acrylic waterproofing membrane. Therefore, it will minimise the potential of water leakage that can happen when planters fill with water due to blocked drainage.

- **Wicking systems**

Wicking systems are an excellent way of taking care of planter vegetation and a less risky alternative to automatic irrigation systems.

Both properly installed, and improperly installed planters can look identical at completion handover. Therefore, it is important to ensure that planter installation quotes from landscapers include how they are going to address planter irrigation as part of their competitive pricing.

## ■ Product Care

Satu Bumi's GRC planters require minimal maintenance, are designed to last for decades when correctly installed and include the following additional protective features: -

- All planters have a waterproofing membrane applied to the inside of the planters.
- Non-painted planters have a penetrative sealer applied to the exterior surface to protect against oil and water-based stains and to stop algae and moss growth.

GRC planters can be cleaned with a damp cloth and soap-based cleaning products, but abrasive cleaning products should not be used, and high-pressure water hoses are not recommended. If scratches or chips occur during or after the installation of planters that have an acid oxide coating finish, touch up kits are available via the following contact details - [sales@satubumi.com.au](mailto:sales@satubumi.com.au)

## ■ Warranty

Satu Bumi GRC planters are manufactured to exacting international standards in compliance with the “Specification for the Manufacture, Curing & Testing of Glassfibre Reinforced Concrete (GRC) Products” produced by the International Glassfibre Reinforced Concrete Association (GRCA) in the UK and comewith the following warranty: -

- Satu Bumi warrants every planter that leaves its factory to be structurally sound, in good condition and free of defects.
- Satu Bumi will provide a product replacement should any structural defect under normal usage becomes apparent within a period of four years.
- Satu Bumi planters are not covered under warranty for: -
  - damage from graffiti, skateboards, any form of vandalism, or staining,
  - water penetration damage caused by installation or post-installation: -
    - structural damage, or
    - damage to the internal waterproofing membrane,
  - fading or modest irregularities in the product finish because they are considered a natural feature,
  - and part of the aesthetic appeal of GRC, surface hairline cracks because they are considered common in concrete products, planter degradation caused by a lack of adequate drainage.

This warranty may be voided where Satu Bumi’s Installation and Product Care guidelines have not been followed.

sales@satubumi.com.au  
+61 (03) 5292 1001  
satubumi.com.au

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